

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P. O. Box 272400  
Fort Collins, Colorado 80527-2400

PATENT APPLICATION  
ATTORNEY DOCKET NO. 200210020-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Thomas Novet et al

C nfirmation N .:

Application No.:

Examiner:

Filing Date: Herewith

Group Art Unit:

Title: ELECTRON EMITTER WITH EPITAXIAL LAYERS

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- (X) under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ( ) under 37 CFR 1.97 (c) together with either a:  
( ) Statement under 37 CFR 1.97(e), or  
( ) a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ( ) under 37 CFR 1.97 (d) together with a:  
( ) Statement under 37 CFR 1.97(e)(1) or (2), and  
( ) a \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account **08-2025** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2025** pursuant to 37 CFR 1.25.

(X) Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

(X) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450. Date of Deposit: 7/23/03

OR  
( ) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_. Number of pages: \_\_\_\_\_

Typed Name: Timothy F. Myers

Signature: Timothy F. Myers

Respectfully submitted,

Thomas Novet et al

By Timothy F. Myers

Timothy F. Myers

Attorney/Agent for Applicant(s)  
Reg. No. **42,919**

Date: 7/23/03

Telephone No.: (541) 715-4197

## PATENT APPLICATION

Sheet 1 of 2

FORM PTO-1449  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)		ATTY. DOCKET NO. <b>200210020-1</b>	APPLICATION NO.	CONFIRMATION NO.
		APPLICANT <b>Novet et al.</b>		
		FILING DATE	GROUP	

## REFERENCE DESIGNATION                    U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
1A	5,894,189	4/13/1999	Ogasawara et al.	
1B	6,285,118	9/4/2001	Hatai et al.	
1C				
1D				
1E				
1F				
1G				
1H				
1I				
1J				
1K				

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L					
	1M					
	1N					
	1O					
	1P					

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1Q	Sheng et al., "Efficient and Ballistic Cold Electron Emission from Porous Polycrystalline Silicon Diodes with a Porosity Multilayer Structure", J. Vac. Sci. Technol. B 19(1), Jan/Feb 2001, pp. 64-67.
1R	Kusunoki et al., "Increasing Emission Current from MIM Cathodes by Using an Ir-Pt-Au Multilayer Top Electrode", IEEE Transactions on Electron Devices, Vol. 47, No. 8, Aug 2000, pp. 1667-1672.
1S	Negishi et al., "High Efficiency Electron-Emission in Pt/SiOx/Si/Al Structure", Jpn. J. Appl. Phys., Vol. 36 (1997), pp L939-L941.

EXAMINER

DATE CONSIDERED

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**REFERENCE DESIGNATION**      **U.S. PATENT DOCUMENTS**

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2A				
2B				
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	2L					
	2M					
	2N					
	2O					
	2P					

**OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)**

2Q	Miyamoto et al., "MIS Emitter with Epitaxial CaF <sub>2</sub> Layer as Insulator", Technical Digest of IVMC'97 Kyongju, Korea, 1997, pp. 226-230.
2R	
2S	

EXAMINER

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